

RU2183910  
ENGLISH ABSTRACT

(11) Number of the patent document **2183910**  
(13) Kind of document **C2**  
(14) Document date **2002.06.20**  
(19) Publishing country or organization **RU**  
(21) Application number registered **2000113220/09**  
(22) Application filing date **1999.09.29**  
(24) Date started of validity of the patent **1999.09.29**  
(31) Priority application number **1998/40507**  
(32) Date of filing of priority application **1998.09.29**  
(33) Alloting country or organization **KR**  
(45) Date **2002.06.20**  
(516) Edition of IPC **7**  
(51) Main classification **IPCH04J13/02**  
(51) Main classification **IPCH04B1/69**  
(51) Main classification **IPCH04B1/707**

Title

**DEVICE AND METHOD FOR GENERATING EXTENDING CODE AND FOR CHANNEL-SIGNAL SPECTRUM  
EXTENSION USING EXTENDING CODE IN CODE-DIVISION MULTIPLE ACCESS COMMUNICATION SYSTEM**

(71) Applicant information **SAMSUNG EhLEKTRONIKS KO., LTD. (KR)**  
(72) Inventor information **KIM Dze-Voo (KR)**  
(72) Inventor information **VOO Dzung-Khio (KR)**  
(72) Inventor information **PARK Chang-Soo (KR)**  
(72) Inventor information **AKhN Dzae-Min (KR)**  
(73) Grantee (assignee) information **SAMSUNG EhLEKTRONIKS KO., LTD. (KR)**  
(74) Attorney, agent, representative information **Emel'janov Evgenij Ivanovich**  
(85) PCT date art. 22/39 **2000.05.26**  
(86) PCT or regional filing information **KR 99/00590 (29.09.1999)**  
(87) PCT or regional filing information (publ.) **WO 00/19732 (06.04.2000)**  
Mail address **129010, Moskva, ul. Bol'shaja Spasskaja, 25, str.3, OOO "Juridicheskaja firma Gorodisskij i  
Partnery", E.I.Emel'janovu**

## ABSTRACT

FIELD: mobile code-division multiple access communication systems. SUBSTANCE: device has pseudonoise (PN) code sequence generator for shaping  $PN_i$  and  $PN_q$  sequences; orthogonal code generator affording change of differential phase keying phase with intervals of at least two code items; and generator shaping extending codes  $C_i$  and  $C_q$  by mixing up (221, 223, 224)  $C_i$  and  $C_q$  code sequences with first and second orthogonal codes so that current phase of extending codes  $PN_i$  and  $PN_q$  changes in turn state of quadrature phase keying and differential phase keying with respect to preceding phase of extending codes  $C_i$  and  $C_q$ . EFFECT: reduced maximal-to-medium power ratio without impairing bit error rate characteristic. 27 cl, 22 dwg